

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Gaston M. Barajas, William P. Hyden, Gavin T. Smith, Thomas Vrhel, Jr.
Assignee: Dell Products L.P.
Title: Integrated Rapid Install System for Generic Software Images
Serial No.: 10/657,374 Filing Date: September 8, 2003
Examiner: Michael D. Yaary Group Art Unit: 2193
Docket No.: DC-05152 Customer No.: 33438

Austin, Texas
May 2, 2008

Electronically Filed

APPEAL BRIEF UNDER 37 CFR § 41.37

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on February 25, 2008. The fee for this Appeal Brief is being paid electronically via the USPTO EFS. The Board is also authorized to deduct any other amounts required for this appeal brief and to credit any amounts overpaid to Deposit Account. No. 502264.

I. REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)

The real party in interest is the assignee, Dell Products LP, as named in the caption above and as evidenced by the assignment set forth at Reel 014474, Frame 0877.

II. RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III. STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)

Claims 1-3, 5-13, 15-23, and 25-30 are pending in the application. Claims 1-3, 5-13, 15-23, and 25-30 stand rejected. The rejection of claims 1-3, 5-13, 15-23, and 25-30 is appealed. Appendix "A" contains the full set of pending claims.

IV. STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)

No amendments after final have been requested or entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

More specifically, the present invention, as set forth by independent claim 1, relates to a method for automatically installing a software image onto an information handling system (see e.g., Barajas Application, Page 8, Lines 6-7). The method includes reading an order for an information handling system (see e.g., Barajas Application, Page 8, Lines 7-11), reading an image manifest (see e.g., Barajas Application, Page 8, Lines 10-13), installing an image specified by the image manifest onto the information handling system as installed software (see e.g., Barajas Application, Page 7, Lines 3-7), automatically configuring the installed software (see e.g., Barajas Application, Page 8, Lines 19-21), determining whether any subtract components are present in the image (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5), and if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5).

The present invention, as set forth by independent claim 11, relates to an apparatus for automatically installing a software image onto an information handling apparatus (see e.g., Barajas Application, Page 8, Lines 6-7). The apparatus includes means for reading an order for an information handling system (see e.g., Barajas Application, Page 8, Lines 7-11), means for reading an image manifest (see e.g., Barajas Application, Page 8, Lines 10-13), means for installing an image specified by the image manifest onto the information handling system as installed software (see e.g., Barajas Application, Page 7, Lines 3-7), means for automatically configuring the installed software (see e.g., Barajas Application, Page 8, Lines 19-21), means for determining whether any subtract components are present in the image (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5), and means for removing the subtract components from the installed software while automatically configuring the installed software when any subtract components are present (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5).

The present invention, as set forth by independent claim 21 relates to a system for automatically installing a software image onto an information handling system (see e.g., Barajas Application, Page 8, Lines 6-7). The system includes a reading module which reads an order for an information handling system (see e.g., Barajas Application, Page 8, Lines 7-11), an image manifest module that reads an image manifest (see e.g., Barajas Application, Page 8, Lines 10-13), an installing module that installs an image specified by the image manifest onto the information handling system as installed software (see e.g., Barajas Application, Page 7, Lines 3-7), a configuring module that automatically configures the installed software (see e.g., Barajas Application, Page 8, Lines 19-21), a subtract component determining module which determines whether any subtract components are present in the image (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5), and a removing module which removes the subtract components from the installed software while automatically configuring the installed software when any subtract components are present (see e.g., Barajas Application, Page 8, Line 29 to Page 9, Line 5).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)

Whether Claims 1-3, 5-13, 15-23 and 25-30 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Burkhardt, U.S. Patent No. 6,823,508 (Burkhardt), in view of Cohen et al., U.S. Patent Publication No. 2003/0233646 (Cohen) is respectfully requested reviewed on appeal.

VII. ARGUMENT - 37 CFR § 41.37(c)(1)(vii)

Claims 1-3, 5-13, 15-23 and 25-30 Are Allowable Under 35 U.S.C. § 103(a) Over Burkhardt U.S. Patent No. 6,823,508 (Burkhardt), in view of Cohen et al., U.S. Patent Publication No. 2003/0233646 (Cohen).

The present invention generally relates to an integrated rapid installation system. With the integrated rapid installation system, an image for installation onto a target system is self contained and can include substantially all current shipping software parts for predetermined target system orders. One aspect of the invention that enables such rapid installation is the ability to determine whether any subtract components are present in the image. Because the image contains substantially all of the possible software components in an order, the image can

be sued in many different types of manufacturing methods. By providing the ability to subtract components from the image, the image that is installed on the target system only includes those components. (See e.g., Barajas application, page 3, lines 11 – 28.) Subtract components are components that are present in the image that are not included within the order, and thus are to be deleted when the image is installed onto the target system. (See e.g. Barajas application, page 8, line 29 – page 9, line 5.)

Burkhardt relates to automatically customizing a program based on a user information store. Burkhardt discloses software programs, such as an operating system or other application programs, which are automatically customized to a specific user based on data corresponding to the specific user that is maintained in a user information store. The information store is a unified store that is accessible by multiple programs including the operating system. Thus, new information or information changes can be made available to multiple programs by the user adding (or changing) the information only once. The operating system image to be installed on a computer may be pre-populated with user-specific information at the factory. The user-specific information can be integrated into the operating system at the factory or alternatively upon an initial boot of the computer by the user.

Cohen discloses a system and method for copying a run-time image independent of computer context from a source computer-readable medium to one or more target computer-readable media of a target computer. Software of the invention integrates the copied software product with the target computer. The software applies an operating system and/or associated application programs to the target computer as a run-time image.

When discussing Burkhardt and Cohen, the Examiner set forth:

Burkhardt does not disclose determining whether any subtract components are present in the image; and if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software.

However, in an analogous art Cohen discloses determining whether any subtract components are present in the image; and if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software ([0005] and [0054], disclose software for image based installation and applying an image to a target computer. Image configuration occurs, and

during configuration adding or removal of components occurs, thus showing that in image based software installation the addition or subtraction of components may be executed) (Office Action 8/10/2007, ¶6, Page 3).

Additionally, in the Response to Arguments Section of the Final Office Action, the Examiner sets forth:

Examiner respectfully disagrees. The combination of Burkhardt and Cohen do in fact disclose “determining whether any subtract components are present in the image, and if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software.” Cohen in [0054] teaches further configuration being performed once an image has been applied to a target computer. Included in this further configuring of the installed software is “adding or removing components” in [0054], lines 8-9. This, when given its broadest reasonable interpretation reads on removing subtract components, or components that are present in the image that are not included within the order (as disclosed on page 8, line 29-page 9, line 5 of the instant application). Furthermore, one of ordinary skill in the art at the time of the invention, when combining [sic] the teachings of Burkhardt with the teachings of Cohen, would be able to apply the “removal of components” as being subtract components or any other components or files that may need to be removed (Final Office Action 12/27/07, ¶18, Page 6).

Paragraph 0005 of Cohen generally discloses software to transfer a run-time image independent of a computer context from a source computer readable medium to a target computer readable medium.

Paragraph 0054 of Cohen sets forth:

Once the run-time image 1 has been applied to the target computer 35, any machine-specific configuration not performed during pre-processing then occurs during integration. In one embodiment, image configuration occurs while the target computer 35 is still in a minimal operating system environment. As described herein, such configuration or integration may include, but is not limited to, configuring/registering software objects in the image, adding or removing components, configuring system settings (e.g., registry settings), moving and decompressing files, and selecting an appropriate language for the locale of the computer. The applied image is then booted and additional configuration items may be processed. Configuration items that may be performed before or after booting include, but are not limited to, resetting user settings and adding device drivers to prepare the image to boot on any hardware, generating security data specific to the target computer 35, and generating any keys required by the applied software program that are based on the generated security data (Cohen, ¶ 0054).

When discussing subtract components, the application sets forth that:

During step 330, the integrated rapid install system 300 determines whether there are any subtract components present in the order. Subtract components are components that are present in the image that are not included within the order, and thus are to be deleted while the image is installed onto the target system 120. If there are any subtract components present in the order, then the integrated rapid install system 300 executes uninstall scripts for the subtract components that are missing from the order at step 332. The integrated rapid install system 300 then determines whether any script failures arose during the execution of the scripts at step 334. If a script failure did occur, then the integrated rapid install system 300 indicates a failure to the gatekeeper at step 320. If there were no script failures, then the integrated rapid install system 300 transfers to step 340 (Barajas Application, Page 8, Line 29-Page 9, Line 9).

Accordingly, merely disclosing machine specific configuration does not disclose removal of components in general and specifically determining whether any subtract components are present and removing subtract components from an installed software while automatically configuring the installed software as claimed.

More specifically, Burkhardt and Cohen, taken alone or in combination, do not teach or suggest a method for automatically installing a software *image* onto an information handling system much less such a method which includes *determining whether any subtract components are present in the image, and if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software*, all as required by claim 1 and as substantially required by claims 11 and 21. Accordingly, claims 1, 11, and 21 are allowable over Burkhardt and Cohen. Claims 2 - 10 depend from claim 1 and are allowable for at least this reason. Claims 12 - 20 depend from claim 11 and are allowable for at least this reason. Claims 22 - 30 depend from claim 21 and are allowable for at least this reason.

VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)

A copy of the pending claims involved in the appeal is attached as Appendix A.

IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.

XI. CONCLUSION

For the reasons set forth above, Applicant respectfully submits that the rejection of pending Claims 1-3, 5-13, 15-23, and 25-30 is unfounded, and requests that the rejection of claims 1-3, 5-13, 15-23, and 25-30 be reversed.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on May 2, 2008.

/Stephen A. Terrile/

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Respectfully submitted,

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CLAIMS APPENDIX “A” - 37 CFR § 41.37(c)(1)(viii)

1. A method for automatically installing a software image onto an information handling system, the method comprising:
 - reading an order for an information handling system;
 - reading an image manifest;
 - installing an image specified by the image manifest onto the information handling system as installed software;
 - automatically configuring the installed software;
 - determining whether any subtract components are present in the image; and,
 - if any subtract components are present, then removing the subtract components from the installed software while automatically configuring the installed software.
2. The method of claim 1, wherein the configuring includes:
 - executing order specific customizations.
3. The method of claim 1, further comprising:
 - determining whether all base components of the order are present in the image.
5. The method of claim 1, further comprising:
 - determining whether any add components are present in the image; and,
 - if any add components are present, then installing the add components from the specified image contents.
6. The method of claim 1, wherein:
 - the automatically configuring is performed at a manufacturing site.
7. The method of claim 1, wherein:
 - the automatically configuring is performed at a customer site.

8. The method of claim 1, wherein:
the automatically configuring enables the installing to be performed in a networkless factory environment.
9. The method of claim 1, wherein:
the automatically configuring enables loading of an image directly from a non-volatile media.
10. The method of claim 1, wherein:
the automatically configuring enables a customized to order process to be performed in a remote manufacturing facility.
11. An apparatus for automatically installing a software image onto an information handling apparatus, the apparatus comprising:
means for reading an order for an information handling system;
means for reading an image manifest;
means for installing an image specified by the image manifest onto the information handling system as installed software;
means for automatically configuring the installed software;
means for determining whether any subtract components are present in the image; and,
means for removing the subtract components from the installed software while automatically configuring the installed software when any subtract components are present.
12. The apparatus of claim 11, wherein the means for configuring includes:
means for executing order specific customizations.
13. The apparatus of claim 11, further comprising:
means for determining whether all base components of the order are present in the image.
15. The apparatus of claim 11, further comprising:
means for determining whether any add components are present in the image; and,

means for installing the add components from the specified image contents when any add components are present.

16. The apparatus of claim 11, wherein:

the means for automatically configuring is located at a manufacturing site.

17. The apparatus of claim 11, wherein:

the means for automatically configuring stored within the information handling system and is executed at a customer site.

18. The apparatus of claim 11, wherein:

the means for automatically configuring enables the installing to be performed in a networkless factory environment.

19. The apparatus of claim 11, wherein:

the means for automatically configuring enables loading of an image directly from a non-volatile media.

20. The apparatus of claim 11, wherein:

the automatically configuring enables a customized to order process to be performed in a remote manufacturing facility.

21. A system for automatically installing a software image onto an information handling system, the system comprising:

a reading module, the reading module reading an order for an information handling system;

an image manifest module, the image manifest module reading an image manifest;

an installing module, the installing module installing an image specified by the image manifest onto the information handling system as installed software;

a configuring module, the configuring module automatically configuring the installed software;

a subtract component determining module, the subtract component determining module

determining whether any subtract components are present in the image; and,
a removing module, the removing module removing the subtract components from the
installed software while automatically configuring the installed software when
any subtract components are present.

22. The system of claim 21, wherein the configuring module includes:
an executing module, the executing module executing order specific customizations.

23. The system of claim 21, further comprising:
a base component determining module, the base component determining module
determining whether all base components of the order are present in the image.

25. The system of claim 21, further comprising:
an add component determining module, the add component determining module
determining whether any add components are present in the image; and,
an installing module, the installing module installing the add components from the
specified image contents when any add components are present.

26. The system of claim 21, wherein:
the configuring module is located at a manufacturing site.

27. The system of claim 21, wherein:
the configuring module is stored within the information handling system and is executed
at a customer site.

28. The system of claim 21, wherein:
the configuring module enables the installing to be performed in a networkless factory
environment.

29. The system of claim 21, wherein:
the configuring module enables loading of an image directly from a non-volatile media.

30. The system of claim 21, wherein:
the configuring module enables a customized to order process to be performed in a
remote manufacturing facility.

EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.